

DEPARTMENT OF TRANSPORTATION**DIVISION OF ENGINEERING SERVICES**

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch

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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-005429**Date Inspected:** 10-Feb-2009**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1900**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Zhang Boa Lei**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** OBG segments**Summary of Items Observed:**

On this day CALTRANS OSM Quality Assurance Inspector (QA) Steve Hall was present during the times noted above for observations relative to the fabrication of the SAS Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island in Shanghai, China. QA observed and/or found the following:

OBG outside assembly (OBG segment 4BW)

This QA observed ZPMC qualified welding personnel identified as Mr. Fei Chengxiang (066239) perform FCAW welding on weld joint identified as SEG019F-001, 007 and 006. ZPMC QC identified as Mr. Yang Diang was present to monitor the welding process. The welding parameters as measured using QC's calibrated instruments appeared to be in general compliance with WPS-B-T-2132-3.

This QA observed ZPMC qualified welding personnel identified as Mr. Fei Chengxiang (066239) perform FCAW welding on weld joints identified as SEG019F-003, 004, 005 and 008. ZPMC QC identified as Mr. Yang Diang was present to monitor the welding process. The welding parameters as measured using QC's calibrated instruments appeared to be in general compliance with WPS-B-T-2232-TC-U4b-F-1.

This QA observed ZPMC qualified welding personnel identified as Mr. Li Bo (067993) perform SMAW tack welding on weld joints identified as SSD021-PP28.5-049~084. ZPMC QC identified as Mr. Yang Diang was present to monitor the tack welding process. The welding parameters as measured using QC's calibrated instruments appeared to be in general compliance with WPS-B-P-2112-FCM.

This QA observed ZPMC qualified welding personnel identified as Mr. Feng Han Jun (066258) perform various minor base metal and fillet weld SMAW repair welding. ZPMC QC identified as Mr. Yang Diang was

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present to monitor the welding process. The welding parameters as measured using QC's calibrated instruments appeared to be in general compliance with WPS-345-SMAW-1G (1F)-FCM-repair and WPS-345-SMAW-3G (3F)-FCM-repair.

This QA observed ZPMC qualified welding personnel identified as Mr. Li Zai Jun (037996) perform SMAW repair welding on weld joint identified as SEG019E-041. ZPMC QC identified as Mr. Yang Diang was present to monitor the welding process. The welding parameters as measured using QC's calibrated instruments appeared to be in general compliance with WPS-345-SMAW-3G (3F)-FCM-repair.

This QA observed ZPMC qualified welding personnel identified as Mr. Zang Yan Bo (045196) perform SMAW repair welding on weld joint identified as SEG019E-038. ZPMC QC identified as Mr. Yang Diang was present to monitor the welding process. The welding parameters as measured using QC's calibrated instruments appeared to be in general compliance with WPS-345-SMAW-3G (3F)-FCM-repair.

OBG outside assembly (OBG segment 5AW, 5BW and 5CW)

No significant work was being performed on these segments while QA was present.

OBG assembly bay 19

This QA observed ZPMC qualified welding personnel identified as Mr. Zhang Jingfu (062747) perform SMAW tack welding on weld joint identified as CB205B-001-013. ZPMC QC identified as Mr. Lu Li Qing was present to monitor the welding process. The welding parameters as measured using QC's calibrated instruments appeared to be in general compliance with WPS-B-P-2211-B-U2.

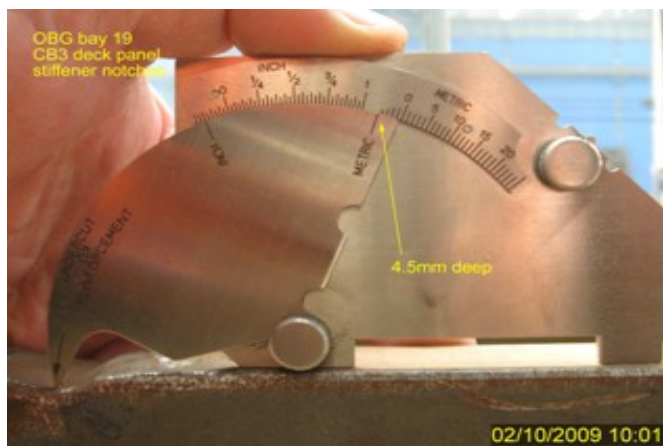
ABF QA inspector identified as Mr. Kevin Cheung informed this QA after the fit up of one of the cross beam diaphragms identified on the material as FB209-1-002, two of the CJP weld joints had excessive root openings. ZPMC personnel have "buttered" (build up by welding) one edge of each joint with approximately 10mm of weld metal. This amount of buttering appears to be acceptable per AWS D1.5 2002 paragraph 3.3.4.1. see attached photos.

This QA noted numerous notches in the edges of the stiffeners on what appears to be all of the side, bottom and deck panels for the cross beams fabricated to date. At this time this QA is unclear as to what the contractor intends to do to correct this discrepancy. See attached photos.

Unless otherwise noted, all work observed on this date appeared to be in general compliance with the applicable contract documents.

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Summary of Conversations:

As mentioned above.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang, 15000422372, who represents the Office of Structural Materials for your project.

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Inspected By:	Hall,Steven	Quality Assurance Inspector
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Reviewed By:	Carreon,Albert	QA Reviewer
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